## Social and behavioural aspects of venereal disease

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The Institute of Venereology of the Warsaw Medical Academy fully appreciates the importance of studying the social and behavioural aspects of venereal disease. This attitude has resulted in the employment of behavioural scientists and the provision of substantial funds for investigation in this field. A large-scale research project has been begun and the preliminary results are reported in this paper.

## Problems, methods, and sampling procedures

The objectives of the study were defined as follows:

- (1) To collect data on the social and behavioural features of patients suffering from V.D.
- (2) To find out how much the public knows and what it feels about V.D. and the existing forms of prevention and control.
- (3) To collect similar data from patients who had previously suffered from V.D.

It was assumed that the best way of collecting data within the framework of a single project would be the survey method modified to meet the specific nature of the problem. Accordingly, the probability sample taken from the population of a certain town was combined with a group of ex-patients from the local V.D. clinic. A town was selected with a population of 40,000 in Central Poland about 100 km from Warsaw. The local press informed the townspeople that the study was just a normal public opinion poll; the interviewers were not instructed to approach people other than those composing the probability sample. The data were blind-coded, the fact that a respondent was a former patient being added by the author at the end of the coding procedure. This scheme not only ensured full confidentiality, but also excluded bias on the part of the interviewers and distortion during the process of data interpretation.

The data so obtained was then studied on two independent levels: the probability sample could be treated as a standard public opinion poll sample, and could also be used as an ideal control group to compare with the V.D. patients.

Two different types of questionnaire were used:

(1) The first, which dealt with the question of subjectively defined social adjustment, was an adaptation of a questionnaire used by the Social Psychiatry Laboratory of the Medical Academy in Warsaw.

Each group of items was intended to measure

adjustment in one of the following specific areas:

- (a) Health troubles, with emphasis on the problem of mental health and neurotic symptoms;
- (b) Self-esteem and evaluation;
- (c) Marital adjustment;
- (d) Subjective evaluation of living conditions, financial standing, and job satisfaction.

The questionnaire also included characteristics such as age, sex, formal education, number of children, income per family member, duration of residence in the town, participation in religious practices, social background, etc.

A written test supplemented the questionnaire. This scale, officially called the Warsaw Scale of Neuroses, was elaborated by Dr. Z. Bizon, a Polish social psychiatrist.

The test was constructed by taking items from standard tests such as the Maudsley Personality Inventory; the 16 Personality Factors Test; the Cornell Medical Index Health Questionary, and adding certain original items devised by Dr. Bizon. The final version consisted of 25 items selected for their discriminatory power, and most effectively differentiated neurotic subjects and matched controls.

The test satisfied routine psychometric criteria. The empirical validity (i.e. the correlation between the clinical diagnosis and the test scores amounted to 0.68 and the split-half reliability was 0.85). Moreover, the test scores were highly correlated with neuroticism as measured by the tests generally used in Poland for clinical diagnosis.

- (2) The second part of the interview was devoted to the subjects' knowledge and popular image of, and attitude towards, V.D. and its treatment and prevention. The most important points were as follows:
- (a) Knowledge about syphilis and gonorrhoea: familiarity with names of the diseases, their cause, symptoms, course, consequences, and the chances of complete
- (b) Dominant attitudes towards V.D.;
- (c) Reception of anti-V.D. information programmes put out by the mass media or by the local health authority;
- (d) Opinions about method of V.D. prevention and control in Poland: i.e. the patient's duty to report contacts, free treatment, compulsory serological testing in pregnancy, etc.;

## (e) Opinions about the type of person who contracts

It is interesting to note that, apart from fragmentary research on particular groups such as high-school vocational school students or migrant construction workers, the question of the general public's opinions and knowledge about V.D. has never been systematically investigated in Poland. For this reason the anti-V.D. information programme was based on traditional patterns or on the intuition and professional experience of those who devised it. We found as our study progressed that some of the premises generally accepted in this field are not entirely correct.

Our questionnaire was tested in two pilot studies. The first, carried out with a sample of thirty people, led to slight changes in wording, and the amended version was fully accepted after a second pilot study conducted on a sample of fifty people including former patients.

The socio-economic characteristics of the population studied, living conditions, and degree of industrialization and urbanization made the selected town a good sample of such communities in the relatively non-industrialized regions of Poland, and the V.D. rates were close to the average in this part of the country.

The probability sample comprised 665 persons (368 women and 297 men) aged from 20 to 65 years, who were chosen from the electoral roll by the standard sampling procedure. Of these, 567 (85 per cent.) were interviewed. Eighteen persons refused to cooperate.

The group of former patients comprised 363 residents of the same town who had been infected with syphilis or gonorrhoea, and were taken at random from the files of Regional V.D. Registry. The numbers of men and women were about equal. Those who were still under routine clinical observation were excluded. Correct addresses were available for only 215 former patients, and 170 were interviewed. It was found that the probability sample included ten persons who had suffered from V.D.; they were added to the group of ex-patients, making a total of 180 (96 men and 84 women).

It must be admitted that the selected group of ex-patients was not, statistically speaking, a probability sample, as the subjects were not chosen on a probability basis, and there was the risk that the important segment of migratory persons was missed altogether. Consequently, in the statistical analysis of the data, it was necessary to use appropriate procedures; in comparing the control group with the ex-patients the null hypothesis was never formulated as a hypothesis of statistical independence, but as a hypothesis that the distribution of a given variable in a population was identical to the empirically assessed distribution of the same variable in the group of V.D. patients. Thus, any application of the results to the whole population of V.D. patients remains a matter of inference and insight unsupported by the abuse of statistics.

The research was conducted by a team of highlytrained interviewers who were introduced to the V.D. problem by specialists at the Institute.

The processing of the data by computer ZAM 141 is not yet complete, but some of the preliminary results are presented and discussed below. We have selected matters whose general application extends beyond the boundaries of the cultural and social background of Poland, in the hope that they may prove to be useful elsewhere.

#### Selected preliminary results

## (1) Socio-demographic features of V.D. patients

The comparison between the group of ex-patients and the probability sample was made separately for men and women. The lower average age of the V.D. patients made it necessary to control this variable permanently, so the groups were matched for age.

The male ex-patients differed from the control group in only two respects: fewer were brought up in the country and fewer declared themselves to be regular church-goers. The other variables, marital status, formal education, occupation, social standing, and income, showed no difference between the patients and the probability sample, with the important exception that transport drivers had a very high V.D. rate irrespective of other considerations.

The female ex-patients differed from the controls not only in their upbringing and religious attitudes, but also in that they tended to have had less education and to be unskilled or semi-skilled workers, and in that more of them had been divorced.

Statistically significant as they are, these differences do not seem to offer any very helpful suggestions for the control of V.D., but they do show that some widely accepted opinions about V.D. patients are typical examples of unjustifiable generalizations. The idea that those who contract V.D. are underprivileged, criminals, prostitutes, outcasts, and hoodlums is seen to be false, although it is often expressed even in medical publications.

Because the V.D. patients interviewed in our study cannot be treated in the same way as the probability sample, no attempt at a statistical extrapolation of the results for the whole population of V.D. patients is justified.

We are also aware that our questions did not cover all aspects of the social characteristics of the V.D. patients. Our results merely show that to treat the patients as social outcasts makes as much sense as to treat the inhabitants of hundreds of towns such as the one investigated as beyond the margin of society. In every such town, there are probably numerous people who, like our subjects, have contracted V.D., but in their social characteristics they are much closer to the man in the street than to an outcast in the wilderness.

# (2) Neuroticism and the problems of psycho-social adjustment

The group of V.D. patients did not differ from the control group in their neurotic tendencies as measured by the Warsaw Scale of Neuroses. The mean scores and variations are shown in Table I. The test was scored from 0 to 50, higher scores indicating greater neurotic tendencies.

TABLE I Neurotic tendencies among V.D. patients and controls (WSN test scores)

Sex	Male		Female	
Series	VD patients	Controls	VD patients	Controls
Mean	15.18	14.05	23.01	22.77
Variance	107·12	94.38	98.92	100.75

Male ex-patients have mean scores amounting to 15·18, while the male controls have an average of 14·05. The mean scores for females are 23·01 and 22·77 respectively. We did not test the variable of age, but it would probably prove to be unimportant. The low correlation between test scores and age reported by Bizon suggests that the absence of differences between patients and controls was not caused by the fact that the controls were older.

We have not yet completed the precise statistical analysis of the data on social and psychological adjustment, but the general trends suggest that the differences are slight or non-existent.

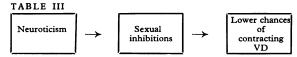
These results do not agree with the marked neurotic tendencies of V.D. patients which were reported by Wittkower (1948), Glass (1967), and Wells (1969).

It is, of course, possible that the highly neurotic V.D. patients are precisely those whom we were not able to reach, but it seems likely that neurotic tendencies are not more common in V.D. patients. The reports stating otherwise are based on psychological testing of persons who were seeking medical help at the V.D. clinics, and this, as mentioned above, may lead to serious distortions. The connection between neuroticism and the chances of contracting V.D. cannot be accepted uncritically. It is generally assumed that neurotic tendencies may lead to

promiscuous sexual behaviour (Table II).



This is certainly one of the possible mechanisms of coping with neurotic anxiety, but on the other hand neurotic tendencies may evoke the reverse effect. The neurotic individual who is unable to overcome sexual inhibitions and avoids sexual contacts is less prone to contract V.D. (Table III).



The hypothesis of greater neuroticism of V.D. patients can be verified by group testing only if it is assumed that the first irregularity is predominant. This could be studied by assessing V.D. rates among individuals with clinically diagnosed neurosis, but no such report is known to the author. We can only say that the way in which an individual copes with his neurotic problems depends upon his cultural background; it is quite possible that neuroticism may more frequently lead to promiscuity in a permissive society.

### (3) Public information and attitudes toward V.D.

Anti-V.D. information programmes, to be effective, should be based on social and behavioural research.

Our results show that some of the assumptions implicit in anti-V.D. propaganda are no longer valid.

The conviction held by the majority of venereologists that people underestimate and neglect the gravity of V.D. is the first of these false assumptions. According to our results, 93 per cent. of the population consider syphilis to be a horrible, crippling disease. Less than 2 per cent, answered that they did not consider syphilis to be dangerous; 5 per cent. had no opinion. That horror is the dominant image of the disease is most vividly exemplified by answers to the question: 'Why do you consider syphilis a serious disease?' Roughly one in four answered 'It's horrible—the body gets rotten and falls off the bones'. This macabre description corresponds more closely to biblical descriptions of leprosy than to syphilis. The discovery of penicillin provided a powerful weapon against Treponema pallidum but did not solve the problem of human anxiety. This domain of human experience still awaits its Fleming.

Clearly the majority of the population still considers syphilis to be incurable and also believes that it may be genetically transmitted even when the infection has been treated. It is thought to cause grave damage to the internal organs, insanity, facial disfigurement, and death, and that it may also lead to impotence and sterility.

In the light of this, a poster warning people to 'Beware Venereal Disease' sounds as ridiculous as the proposition 'Remember, lung cancer is no trifling matter!'.

With respect to gonorrhoea, a casual attitude is also far from common, although it does exist. Only 25 per cent. of those questioned replied that 'gonorrhoea is not a serious disease; it's easy to cure and leaves no traces'. The general opinion about V.D. is mainly shaped by the fearful image of syphilis; people are well aware that whether they contract the one disease or the other is a matter of chance.

Those concerned with health education tend to believe in the total ignorance of the man in the street. In our opinion the danger of the present situation lies not in the fact that the average man is uninformed but in the fact that he is grossly misinformed. This distinction between lack of information and misinformation is not mere hair-splitting; the best illustration is the recognition of symptoms. The prevalent misconceptions make it difficult for an individual to recognize the true symptoms of V.D., which, as in primary syphilis, are slight and painfree, and disappear spontaneously. Much health education material deliberately pursues a deterrent effect. Such propaganda generates such anxiety that it is almost impossible to substitute rational information for the existing misconceptions.

It should also be noted that feelings of shame and guilt are a serious obstacle to V.D. control. In answer to semi-projective questions about reasons for delay in medical consultation, for default, and for refusal to report contacts, shame and guilt were the reasons most frequently given. These factors are often underestimated by venereologists, who more often think that delay and non-cooperation are due to negligence and ignorance.

The opinions of the venereologists influence not only the trend of health education but their own personal attitudes to their patients. An independent study on experts' opinions, in which practising venereologists were asked to predict the results of our research, is being conducted by one of our colleagues.

#### **Conclusions**

A consideration of the preliminary results of these two surveys may lead to distressing conclusions. For example, the evidence indicates that those who have suffered from V.D. differ very little from the rest of the population: they are not social outcasts or misfits and they share the same misconceptions, irrational attitudes, and anxieties. Gonorrhoea patients, for instance, had only a very slightly better knowledge of the symptoms of syphilis than the general public. These people had been cured but they had not been well instructed; somewhere in their medical management a great chance had been lost. Yet the V.D. patients are not the only losers. Doctors who assume an authoritarian attitude of contempt for their patients deprive themselves of the intellectual satisfaction offered by their profession. For an intelligent man is one for whom every human contact is essentially fruitful.

It is, of course, possible to argue against these conclusions, and they should be the subject of a thorough discussion. We only point out that, in anti-V.D. propaganda as in any other effort to change the pattern of human behaviour, man can become the victim as well as the beneficiary of the system.

#### References

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#### Aspects sociaux et de comportement des maladies vénériennes

#### SOMMAIRE

On examine les résultats préliminaires de ces deux enquêtes qui peuvent entraîner des conclusions désolantes. Par exemple, l'évidence montre que ceux qui ont été atteints de maladie vénérienne ne diffèrent que très peu du reste de la population: ils ne sont pas socialement rejetés ou inadaptés et partagent les mêmes erreurs, attitudes irrationnelles et anxiétés'. C'est ainsi que les gonococciques n'ont seulement qu'une connaissance légèrement meilleure des symptômes de la syphilis que le public en général. Ceux qui sont guéris n'ont pas été correctement informés; quelque part dans leur prise en charge médicale, on a laissé échapper une grande occasion. Cependant, les malades vénéréologiques ne sont pas les seuls perdants. Les médecins qui prennent une attitude autoritaire méprisante vis à vis de leurs malades se privent de la satisfaction intellectuelle que leur offre leur profession. Pour un homme intelligent, tout contact humain est bénéfique par essence.

Il est évidemment possible de discuter ces conclusions et elles doivent être envisagées exhaustivement. Il nous faut seulement souligner que, dans la propagande antivénérienne comme dans tout effort pour changer le profil du comportement humain, on peut devenir la victime aussi bien que le bénéficiaire du système.